A RESEARCH AND DEMONSTRATION PROJECT:

Establishing Mobility Training for Blind Children As A Function of Special Education in Public Schools

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Report By:

Metropolitan Society
For The Blind,
Detroit, Michigan

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2/3/69 Letter Request

This report on Metropolitan Society for the Blind's mobility training demonstration project is divided into the following sections:

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FOREWORD: WHY BLIND YOUNGSTERS NEED MOBILITY TRAINING

To most Americans, moving about independently at home, work, or school -- in familiar or strange places -- is as natural and spontaneous as breathing. A child walks to school. A man runs to catch his bus. A woman roams the supermarket. Each draws on mobility skills developed automatically as part of unconscious growth.

But to other Americans -- persons who are blind -- the seemingly-simple process of moving about at will is a complicated mental, physical and emotional challenge.

Of course, the blind person, too, must learn to get about. But his learning process is quite conscious, considerably more difficult, and vastly different.

Until recently, mobility education -- the process of teaching blind persons to move about with safety, dignity and confidence -- was provided primarily for adults (particularly blind war veterans).

Today, however, mobility training goes further -- by helping blind children learn to lead active and independent adult lives.

Blind youngsters who learn to function on their own during formative years get both immediate and long-term benefit. Mobility complements learning. It stimulates exploration of an ever-expanding world. It develops a growing range of ideas and attitudes. It enhances higher education and career opportunities.

In short, mobility training helps a child build positive self-identity, develop constructive social behavior. extract knowledge and rewards from the external world. Mobility education does this by developing self-sufficiency, sound thinking, reasoned behavior, expanded awareness.

Despite these outstanding values, regular programs of mobility education have not been generally available to children in the nation's schools.

A variety of factors have limited mobility education:

- A shortage of teachers and specialists qualified on mobility.
- Lack of funds to conduct research into techniques and conditions favoring optimum learning.
- Lack of established guidelines for teaching mobility in public school systems.

- Lack of knowledge about benefits of mobility education among key groups: parents of blind children, educators and school administrators.

What can be done? Can quality and quantity of mobility education for the young be improved? Most important of all, how can mobility be established in public schools as a regular function of special education?

In this three and a half year research and demonstration project, Metropolitan Society for the Blind explored these factors -- and many others -- to reach encouraging conclusions. This report documents this experience.

I. SUMMARY OF MOBILITY DEMONSTRATION PROGRAM

In this community demonstration project, Metropolitan Society for the Blind initiated and implemented:

- A three and one-half year study with 136 blind students (ages 5 to 21) who attended public schools in Detroit. The study was conducted in association with Departments of Special Education in three counties -- utilizing a representative sample of the area's school-age blind population.
- Two separate five-week summer programs for teaching mobility to blind teen-agers established a pattern that will recur yearly. One program, carried out with The Rehabilitation Institute, was conducted with 15 youngsters (ages 12 to 15). The other program, in association with the Michigan School for the Blind, utilized 52 teen-agers (ages 11 to 16).

In conducting this overall project, Metropolitan Society for the Blind accepted this complex challenge:

- To develop community support for the program, in general, as well as specific support of school administrators.
- To inform and educate parents, teachers, and students on the philosophy and goals of independent travel.
- To transfer to children methods proved effective in teaching adventitiously blinded adults.

The success of the demonstration project is measured by desire of administrators to incorporate mobility training in public schools. The reaction was positive: mobility education is now available to the majority of metropolitan Detroit's blind children.

This report outlines basic needs, objectives pursued, organizations involved, methodology and sample utilized. It makes detailed recommendations for the future -- in teaching, administration, and added research.

II. BASIC OBJECTIVES OF DETROIT DEMONSTRATION PROJECT

The overall objective of Metropolitan Society for the Blind's demonstration project -- to document the methodology most effective in establishing mobility training in public schools -- is closely related to seven component goals. The project was also designed to:

1. Show how mobility instruction strengthens the entire education and habilitation process
2. Prove effectiveness of mobility education in blind children with multi-handicaps
3. Establish the principle that public schools can initiate mobility training without outside consultants -- and maintain continuity during the transition
4. Demonstrate the value of parent-teacher mobility workshops
5. Show how community resources can be mobilized in a cooperative effort to provide mobility instruction
6. Provide guidelines for mobility instruction of blind students in day schools
7. Show how mobility training -- a key element in habilitation -- can help reduce the need for rehabilitation

III. DETROIT'S INITIAL TASK: DEVELOPING COMMUNITY AWARENESS

Initially Metropolitan Society for the Blind concentrated on building community awareness about the need for mobility education in Detroit's elementary, junior and senior high schools. This required communicating with four key publics: school administrators and educators, community organizations, parents of blind children, the general public. To reach these groups, MSB:

- Made a series of presentations to opinion-leaders in education and community service organizations
- Enlisted active support from boards of education, school superintendents, leaders in special education, family service agencies, rehabilitation and recreational groups, and others
- Established on-going committees composed of representatives of these groups. Committees met regularly to insure the project's effective development.

IV. FUNDS AND FACILITIES FOR DEMONSTRATION PROJECT

Two cornerstones to success of this demonstration project -- funding and operations -- are presented here in detail.

A. Funding the Project

Public and private sources made significant financial contributions to the mobility education project. Funds were provided Metropolitan Society for the Blind by:

1. Vocational Rehabilitation Administration. Under Public Law 565, the Vocational Rehabilitation Administration has the authority to:

> "Pay part of the cost of projects for research, demonstrations, training and traineeships, and projects for the establishment of special facilities and services, which, in the judgment of the Secretary of Health, Education and Welfare, hold promise of making a substantial contribution to the solution of vocational problems common to all or several states."

VRA approval and funding was received for this mobility project.

2. The McGregor Fund. Matching funds required for a VRA grant were contributed by The McGregor Fund, a private foundation.

3. The Rehabilitation Institute provided facilities for the first summer mobility training program. RI paid salaries and expenses for seven project staff members.

4. Tri-County Schools. Several school districts contributed teaching aids and facilities for parent-teacher workshops.

5. Michigan School for the Blind. Through special legislative appropriations, the Michigan School for the Blind provided major financial support for summer mobility programs in 1965 and 1966. The school contributed salaries for additional staff, program facilities, room and board, field trips, and other items for students.

6. United Community Services provided office space, telephone, and funds for overhead items.

B. Operations: Implementing the Project

In operating Detroit's mobility demonstration project, special knowledge, facilities and manpower of four distinct organizations were brought together: the Metropolitan Society for the Blind; the Tri-County School departments of special education; the Michigan School for the Blind and The Rehabilitation Institute.

Here are details on the purpose, services, and function of each.

1. Metropolitan Society for the Blind develops services and community influences that deal with causes and effects of blindness. MSB offers the following services:

a. Information and Referral: Many social agencies provide services useful to blind people. MSB helsp blind persons make appropriate and timely use of them.

b. Consultation: As liaison agency in the community, MSB conducts diagnostic work with the blind and provides consultation to other agencies serving them.

c. Specialized Service: MSB meets needs specific to blindness. In so doing, other agency facilities are used to the fullest. MSB develops the plan and provides the specialist. This area includes physical orientation, travel training, braille instruction and utilizing aids and appliances -- cooking utensils, sewing guides, medical devices, tools, games.

d. Public Education: MSB works to modify the disabling image of blindness and to maximize integration of blind people in community life.

As the grantee agency in the demonstration project, MSB suggested this concept to Vocational Rehabilitation Administration. MSB requested funds from the McGregor Foundation and help from other community agencies. MSB also provided mobility instruction to students, consulted with schools and cooperating agencies, developed parent/teacher workshops, organized summer programs, recruited staff members, interpreted project goals to the community, and established groundwork for continuance of mobility education.

2. The Tri-County Schools, Department of Special Education plans educational programs for the physically handicapped, the educable and trainable retarded, emotionally disturbed and socially maladjusted. Programs include classes for the blind and partially seeing, mentally handicapped, and emotionally disturbed. English language classes are conducted for children from other countries, as are speech correction classes and hearing conversation programs.

The department also initiates special schools for the orthopedically handicapped, the epileptic, the deaf and hard of hearing. Education programs for handicapped children are administered by the local public schools with approval and reimbursement by the Department of Public Instruction.

Besides providing educational programs for blind children from nursery through high school, schools also provide advice, assistance, and counseling to parents. Home counselors help families of visually handicapped children accept limitations and appreciate the child's assets. Vision tests, psychological tests, and health services are provided.

The departments of special education assisted the mobility project by interpreting program goals to schools administrators, teachers, and parents. Arrangements with teachers and peripatologists for in-service workshops were made by the departments of special education. The department also participated in organizing two summer mobility programs.

3. The Michigan School for the Blind provides a complete educational program for visually handicapped boys and girls from kindergarten through high school. Courses correspond with regular public school courses. Students get a broad cultural background pointing toward a vocation or profession. The school holds conferences for parents and children each year to interpret programs and to prepare new students.

To meet problems of multi-handicapped blind children, the school has conducted experimental classes. School activities are designed to build well-rounded social, emotional and intellectual lives.

The Michigan School for the Blind participated in two summer mobility programs -- in cooperation with Metropolitan Society. In 1965, the program was jointly sponsored by the two agencies. In 1966 and 1967, the summer mobility projects were continued by the Michigan School for the Blind.

4. The Rehabilitation Institute of Detroit correlates and provides services for rehabilitation for the physically handicapped. Included are diagnostic services, physical therapy, occupational therapy, speech and hearing services, psychological / medical / social services, prevocational exploration, vocational counseling, training for the blind. In addition, the Institute provides facilities for research and education designed to prevent crippling conditions and improve services for handicapped persons.

The Rehabilitation Institute provided facilities for the 1964 summer program. Representatives from the Institute and Metropolitan Society planned the program. The two agencies jointly sponsored it.

V. CHARACTERISTICS OF SAMPLE GROUP IN MOBILITY DEMONSTRATION

In a three and one-half year period beginning in 1964, 136 blind children and young people were selected to take part in the mobility demonstration project. These students attended elementary and secondary schools throughout metropolitan Detroit's three-county area.

The group contained a wide range of mental and physical characteristics. The 67 boys and 69 girls differed in degree of blindness, intelligence level and medical history. Age span: five to 21 years.

This representative sample (estimated total under-18 blind population in Detroit area: 650) was carefully chosen to demonstrate feasibility of mobility education for every segment of Detroit's school-age blind population.

Student selection and evaluation by mobility training specialists followed reviews of school records and interviews with parents, teachers and students.

These tables present total known blind school-age persons by age and county of residence -- as well as details on physical and mental traits of this sample group:

TABLE 1 - AGE GROUPING OF BLIND CHILDREN BY COUNTY OF RESIDENCE

County	Total		Under 3 yrs		3 - 5 yrs		6 - 14 yrs		15 - 18 yrs	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Wayne......	186	170	6	4	21	18	126	123	33	25
Oakland....	60	54	3	1	4	2	41	42	12	9
Macomb.....	40	36	5	1	7	6	23	29	5	--
Total.......	286	260	14	6	32	26	190	194	50	34

Break outs of available population data on the 546 children known to agencies in the three counties.

TABLE 2

AGE GROUPING OF SAMPLE GROUP BY SEX
and
COUNTY OF RESIDENCE

Age	Counties							
	Wayne		Oakland		Macomb		Total	
	Male	Female	Male	Female	Male	Female	Male	Female
5 - 8 Years	2	3	1	1	0	1	3	5
9 - 12	12	12	2	5	6	1	20	18
13 - 16	23	27	13	8	0	1	36	36
17 - 19	6	4	1	2	0	0	7	6
20 - 21	1	2	0	2	0	0	1	4
TOTAL	44	48	17	18	6	3	67	69
PERCENT	67.64		25.73		6.61		100.00	

The sample group for mobility training totaled 136 persons. Table 2 shows the chronological age and sex of the sample group by county of residence.

TABLE 3

AGE AT ONSET OF BLINDNESS (by Age)

Onset of Blindness			Age				
	5-8	9-12	13-16	17-19	20-21	Total	Percent
0 - 1 year	6	31	60	7	4	108	79.41
2						---	
3		1				1	.73
4		2				2	1.46
5		1				1	.73
6		1	2			3	2.19
7		1				1	.73
8			3			3	2.19
9			1			1	.73
10						--	--
11				1		1	.73
12						--	--
13						--	--
14						--	--
15						--	--
Unknown	2	1	6	5	1	15	11.02
TOTAL	8	38	72	13	5	136	100.00

Table 3 provides information concerning the age of the child at onset of blindness. The visual loss is diagnosed after the actual onset of impairment. The onset of blindness is unknown in 15 cases or 11.02 percent of this group.

TABLE 4

SEX DISTRIBUTION
by
VISUAL STATUS*

Visual Status	Male	Female	Total	Percent
Absolute blindness	28	23	51	37.50
Light perception	21	25	46	33.82
Motion perception to 5/200	10	11	21	15.44
5/200 to 9/200	1	1	2	1.47
10/200 to 19/200	2	2	4	2.94
20/200	2	3	5	3.67
Restricted field	0	0	0	
Assumed legal blindness	2	5	7	5.14
TOTAL	66	70	136	100.00

Table 4 details visual status of the sample group. Statistics in this table represent vision in the best eye with correction. In this group, more boys than girls were absolutely blind -- but the difference is very slight.

TABLE 5

PROGNOSIS FOR VISION
by
VISUAL STATUS

Visual Status	Prognosis				
	Stable	Positive	Negative	Unknown	Total
Absolute blindness	49	1	0	1	51
Light perception	42	0	0	4	46
Motion perception to 5/200	17	1	1	2	21
5/200 to 9/200	1	0	1	0	2
10/200 to 19/200	4	0	0	0	4
20/200	4	0	1	0	5
Restricted field	0	0	0	0	0
Assumed legal blindness	2	0	0	5	7
TOTAL	119	2	3	12	136
PERCENT	87.50	1.47	2.20	8.82	100.0

Table 5 shows the prognosis for visual stability, improvement or eventual loss. This table shows: in the majority of cases, eye conditions of students will remain stable. In cases of assumed legal blindness or unknown visual prognosis cases were referred to ophthalmolgists or eye clinics.

TABLE 6

NUMBER OF STUDENTS
RECOMMENDED FOR PROFESSIONAL LOW VISION TESTING
by
VISUAL STATUS

Visual Status	Recommended for Testing	No Recommendations Made	Total
Absolute blindness	0	51	51
Light perception	3	43	46
Motion perception to 5/200	2	19	21
5/200 to 9/200	0	2	2
10/200 to 19/200	2	2	4
20/200	2	3	5
Restricted field	0	0	0
Assumed legal blindness	1	6	7
TOTAL	10	126	136
PERCENT	7.35	92.65	100.0

Table 6 shows the number of students recommended for professional low vision testing. For ten students to be recommended for low vision testing may seem negligible, but ophthalmolgists felt that only 2 (1.47 percent) of the sample group had a positive prognosis. Prognosis was unknown or not recorded in 12 cases.

TABLE 7

INTELLECTUAL STATUS OF SAMPLE GROUP
by AGE

Intellectual Status--I.Q.	AGE 5-8	9-12	13-16	17-19	20-21	Total	Percent
Gifted (above 130)		1				1	0.73
Above average (110-130)		4	6	1		11	8.08
Average (90-110)	1	5	18	2		26	19.11
Below average (75-90)	2	8	12	2	1	25	18.38
Mentally Handicapped (50-75)		5	11	1	2	19	13.97
Mentally deficient (25-50)	1		1			2	1.46
Unknown	4	15	24	7	2	52	38.23
TOTAL	8	38	72	13	5	136	100.00

Table 7 presents the intellectual status of the sample group. It is difficult to determine mental ability of blind children. Only trained psychologists or diagnosticians should test blind children. This may account for a large percentage (38.23%) of unknown evaluations in this sample group.

TABLE 8

INTELLECTUAL STATUS OF STUDENTS
by
COUNTIES and DETROIT

Intellectual Status -- I.Q.	Residence				
	Oakland	Macomb	Wayne	Detroit	Total
Gifted (above 130)			1		1
Above Average (110 - 130)		1	1	9	11
Average (90 - 110)	4	2	7	13	26
Below Average (75 - 90)	5	2	5	13	25
Mentally Handicapped (50 - 75)	3	1	1	14	19
Mentally Deficient (25 - 50)				2	2
Unknown	23	3	24	2	52
TOTAL	35	9	39	53	136

Table 8 details intellectual status of the sample group by counties and Detroit. Most of the Detroit school children had been tested (5i out of 53). More than half the Oakland County and out-Wayne County children had not received psychological evaluations. Two-thirds of Macomb County had received psychological evaluations.

Mental ability and educational programming are closely related. It is difficult to provide an educational program without understanding the mental ability of the blind child. If complete data concerning is available, differences between blind and sighted children can be minimized and the visually handicapped child can often participate in activities along with sighted children.

TABLE 9

AGE AT PSYCHOLOGICAL TESTING
and
TYPE OF TEST USED

TEST	AGE 5-8	9-12	13-16	17-19	20-21	INA*	Total	Percent
Hayes-Binet	41	20	4	0	0	0	65	47.79
WISC	4	7	4	0	0	0	15	11.02
Revised Stanford-Binet	2	1	0	0	0	0	3	2.20
Large Thorndike	0	1	0	0	0	0	1	.73
Information not available	0	0	0	0	0	52	52	38.23
TOTAL	47	29	8	0	0	52	136	100.00
Percent	34.55	21.23	5.88	0	0	38.23	100.00	

Table 9 presents data on the type of tests used in evaluating the sample group and ages at time of testing. Most children received the Hayes-Binet test -- prepared for (and standardized on) blind children.

Testing between ages five and eight may seem unrealistic. However, educators are able to get an indication of probable intelligence in this age group.

*Information not available

TABLE 10

MEDICAL EXAMINATIONS COMPLETED (by Visual Status)

Visual Status	Medical Examination	No Medical Examination	Total
Absolute blindness	34	17	51
Light perception	38	8	46
Motion perception to 5/200	15	6	21
5/200 to 9/200	1	1	2
10/200 to 19/200	4	0	4
20/200	3	2	5
Restricted field	0	0	0
Assumed Legal Blindness	2	5	7
TOTAL	97	39	136
PERCENT	71.32	28.67	100.00

Table 10 gives evidence that 71.32% of the children in the sample group had received medical examinations. All children need thorough medicals, but when a child is participating in mobility courses or physical education courses, the need for a medical examination becomes pertinent.

TABLE 11

AUDITORY EXAMINATIONS COMPLETED (by Visual Status)

Visual Status	Auditory Examination	No Auditory Examination	Total
Absolute blindness	4	47	51
Light perception	5	41	46
Motion perception to 5/200	1	20	21
5/200 to 9/200	0	2	2
10/200 to 19/200	0	4	4
20/200	0	5	5
Restricted field	0	0	0
Assumed legal blindness	0	7	7
TOTAL	10	126	136
PERCENT	7.35	92.64	100.00

Table 11 points out: a significant number (92.64 percent) of the sample group had not received auditory examinations. Table 10 shows that 71.32 percent of the students did receive medical examinations. It is quite likely that physicians checked hearing of quite a number. However, educators must be very concerned with hearing acuity of the visually handicapped. The child learns much through hearing. Objects, persons, and things in his environment emit sound clues.

TABLE 12

MENTAL AND PHYSICAL DISABILITIES*

(by Visual Status)

Visual Status

Disabilities	Absolute blindness	Light perception	Motion perception to 5/200	5/200 to 9/200	10/200 to 19/200	20/200	Restricted field	Assumed legal blindness	Total	Percent
Hearing loss	1	3	0	1	0	0	0	0	5	3.67
Mentally retarded	7	11	2	0	1	0	0	0	21	15.44
Cerebral palsy and brain damage	2	1	0	0	1	0	0	0	4	2.94
Paralysis	0	0	1	0	0	0	0	1	2	1.47
Speech defect	1	1	0	0	0	0	0	0	2	1.47
Thyroid	0	0	0	0	0	0	0	0	0	
Rheumatic fever	0	0	0	0	0	0	0	0	0	
Poliomyelitis	0	1	0	0	0	0	0	0	1	.73
Clubfeet	0	0	0	0	0	0	0	0	0	
Asthma	0	1	0	0	0	0	0	0	1	.73
Seizures	0	1	0	0	0	0	0	0	1	.73
Meningitis	0	0	0	0	0	0	0	0	0	
Cancer	1	0	0	0	0	0	0	0	1	.73
No disability reported	39	27	18	1	2	5	0	6	98	72.05
TOTAL	51	46	21	2	4	5	0	7	136	100.00

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*These statistics represent primary disabilities. Some students had more than one disability.

Table 12 gives presents mental and physical disabilities of the sample group by visual status. A multi-handicapped child can usually benefit from many curriculum areas with some adaptation of techniques. However, to teach effectively, teachers must be aware of the child's residual vision and hearing abilities.

Table 13 shows blind children with combined multiple disabilities. Although mobility education for blind children with multiple disabilities presents problems, the task is feasible in some instances. Disabilities reported in Table 13 may not seem severe in themselves. When combined with blindness, they may result in a severe situation for the child. Further, a child with two disabilities (plus blindness) must make tremendous efforts to gain from educational experiences.

Table 14 provides information regarding the cause of blindness and the visual status of the sample group. RLF is a major cause of blindness -- 42.64 percent -- and RLF with another diagnosis accounts for 51.47 percent of cause.

TABLE 13

STUDENTS WITH COMBINED MULTIPLE DISABILITIES

DISABILITIES	Hearing loss	Retarded	Cerebral palsy & brain damage	Paralysis	Speech defect	Thyroid	Rheumatic fever	Poliomyelitis	Clubfeet	Asthma	Seizures	Meningitis	Cancer
Hearing loss					5	3							
Retarded													
Cerebral palsy & brain damage				8							6		
Paralysis												7	
Speech defect		1											
Thyroid													
Rheumatic fever													
Poliomyelitis						4	4		4				
Clubfeet													
Asthma													
Seizures													
Meningitis													
Cancer													
Multiple													

Note: Each different number represents a different pupil.

TABLE 13

STUDENTS WITH COMBINED MULTIPLE DISABILITIES

DISABILITIES	Hearing loss	Retarded	Cerebral palsy & brain damage	Paralysis	Speech defect	Thyroid	Rheumatic fever	Poliomyelitis	Clubfeet	Asthma	Seizures	Meningitis	Cancer
Hearing loss					5	3							
Retarded													
Cerebral palsy & brain damage				8							6		
Paralysis												7	
Speech defect		1											
Thyroid													
Rheumatic fever													
Poliomyelitis						4	4		4				
Clubfeet													
Asthma													
Seizures													
Meningitis													
Cancer													
Multiple													

Note: Each different number represents a different pupil.

TABLE 14

CAUSE OF BLINDNESS (by Visual Status)

Visual Status

TABLE 14

CAUSE OF BLINDNESS (by Visual Status)

CAUSE OF BLINDNESS	Visual Status								
	Absolute Blindness	Light Perception	Motion Perception to 5/200	5/200 to 9/200	10/200 to 19/200	20/200	Restricted Field	Assumed Legal Blindness	TOTAL	PERCENT
RLF	20	26	9		1	1		1	58	42.64
RLF with										
disorganized eye	1								1	0.73
promaturity										
microcornea	2								2	1.46
microphthalmos	3	3	1						7	5.14
atrophy		1							1	0.73
retinopathy			1						1	0.73
panophthalmitis										
CORNEA										
diseased		1							1	0.73
scarring										
staphyloma			1						1	0.73
degeneration										
MUSCLE										
degeneration with cystic atrophy				1					1	0.73
myopia										
estropia										
nystagmus with cataracts			1						1	0.73
amblyopia		1				1			2	1.46
INFLAMMATION										
uveitis	1	1	1						3	2.19
choroiditis										
iritis										
ALBINISM				1					1	0.73
NERVES (defect in visual tract)		2							2	1.46
RETINA										
degeneration		2						1	3	2.19
detached	1	1							2	1.46
pigment degeneration			1						1	0.73
underdeveloped										
RETINOBLASTOMA	7				1				8	5.88
GLAUCOMA	3	2	2		1	2			10	7.35
OPTIC ATROPHY		1						1	2	1.46
CATARACTS	2	1	1		1	1			6	4.41
TRAUMA	1								1	0.73
UNKNOWN	10	4	3					4	21	15.44
TOTAL	51	46	21	2	4	5		7	136	100.00

VI. INTRODUCING MOBILITY CONCEPTS TO TEACHERS AND PARENTS

A blind child is influenced considerably by the attitudes of his parents and teachers. If a respected teacher favors an idea or activity, the child is likely to accept it. If a parent scorns or fears something, the child's reaction is likely to be negative as well.

To introduce the concept of mobility training to teachers and parents of blind youngsters, Metropolitan Society for the Blind carefully evolved two different types of workshops -- one for teachers, one for parents. Their identical objectives: to help key adults in a blind child's life understand independent travel -- its philosophy, values, and practical application.

A. Workshops for Teachers

Teacher workshops were designed to: (1) teach the resource teacher pre-cane and indoor travel techniques so this knowledge could be used to reinforce and improve a child's mobility instruction (2) develop positive teacher attitudes about mobility instruction (3) create understanding of the teacher's role in mobility education (4) help the teacher orient the child to new situations (5) develop skills in selecting travel routes for the student.

Workshop subjects included opportunities to execute pre-cane skills, how to select routes for blind children, which landmarks and clues help orient children, etc. The Long Cane, a Veterans Administration documentary film, was shown and discussed.

To learn fundamentals of indoor travel, teachers tested skills blindfolded -- first on simple routes, then more difficult. Traveling blindfolded exposed teachers to the same physical and mental demands faced by students. Directing blindfolded fellow teachers -- in non-visual terms -- illustrated the problem.

Following workshops, mobility specialists discussed problems of individual students with their teachers.

B. Workshops for Parents

Parent workshops covered a broader range of topics. In addition to mobility traning, parents were advised about the child's living skills, social isolation, limited recreational activities, future employment and higher education. For these reasons, parent workshops were held more frequently.

Participating in workshops: the mobility staff, resource teachers, and rehabilitation specialists in vocational counseling and occupational therapy.

Workshops were endorsed by school administrations and teachers in the tri-county area. Workshop success is measured by outstanding parent attendance and participation. Parents requested workshops on a regular basis.

VII. ADMINISTRATIVE AND EDUCATIONAL OPERATIONS

Two programs for summertime mobility training were developed by Metropolitan Society for the Blind. In 1964, a joint program was planned with the Rehabilitation Institute of Detroit. In 1965, a joint program was developed with the Michigan School for the Blind.

Both programs were designed to serve blind teen-agers via similar objectives and content. Both were five-weeks long. In each, joint committees established content, number of participants, and selection criteria.

Fifteen youngsters, 12 to 15 years old, participated in the Rehabilitation Institute program. Fifty-two youngsters, 11 to 16 years old, participated in the Michigan School for the Blind program.

Here are details on both summer programs:

A. Rehabilitation Institute Program

The program was designed to:

Stimulate each child's interest and initiative in becoming a well-rounded and informed individual.

Assist each child develop personal, social and functional skills toward becoming an independent, self-reliant, contributing member of the community.

Curriculum. To realize the objectives, this curriculum was developed:

Activities of Daily Living

- Meal preparation
- Table etiquette
- Use of timer and lock-lid pan
- Distinguishing between various types of clothing material
- Tying knots
- Polishing shoes
- Use of self-threading needles
- Social skills

Physical Therapy

- Calisthenics in group

Communications

- Use of dial telephone
- Writing signature
- Braille and typewriting skills
- Use of talking book
- Use of tape recorder

Recreation and Leisure Time Activities

Swimming
Bowling
Dancing
Table games
Field trips

Group Sessions

General discussions and guest speakers
Mobility discussions

Occupational Therapy

Handcrafts and weaving

Mobility

Orientation to building
Progressive outdoor experiences according
  to need and readiness

Program Site. The Rehabilitation Institute was program site for four reasons:

Location is near mass transit. As students gained skill in mobility, they took the bus to the Institute.

The Rehabilitation Institute made its diagnostic, ADL, OT, PT and psychological services available.

The Institute cafeteria provided participants with hot lunches. During mealtime, the ADL specialist observed eating habits of the pupils.

The weekly fee for meals and supplies were reduced to $5 since the Institute is a United Fund Agency.

Students. Participants, residents of metropolitan Detroit, were students enrolled in day school programs during the year or students at Michigan School for the Blind. Selection of the 15 students was based upon need for training in all areas of instruction and capacity to benefit from the five-week program. Girls and boys (ages 12 - 15) participated.

Parent Participation. Parents were responsible for providing children with spending money, clothing for various activities, transportation to the Institute. Parents also provided health data and physical examination forms executed by the family physician.

Evaluation. During the final days, students evaluated the program in group sessions. (Some responses may have resulted from group pressure rather than personal feelings.) Suggestions from students:

1. Fee for attending should be more than five dollars weekly. However, most students stated their families could not afford more.

2. The program should run longer than five weeks.

3. Students should be taught to write more things than just their names.

4. Girls should get more instruction in ironing, cooking, sweeping, etc.

5. Group sessions should have been led or more structured.

6. Mobility should have been scheduled only once a week after inside routes have been learned.

7. Exercises in physical therapy were too strenuous.

8. Swimming once a week is sufficient.

B. Michigan School for the Blind Program

This training was designed to:

. Help each child develop additional personal, social and functional skills -- building toward becoming an independent, self-reliant, and contributing member of family, school and society.

- Expose each child to experiences of daily living (mobility, physical education and recreation, arts, crafts, shop) allowing mastery of fundamental skills in these areas.

- Add to each child's overall physical and mental development.

Curriculum. The summer program curriculum included; Daily Living Skills, Mobility, Physical Education and Recreation, Arts and Crafts (girls), Shop (boys). Each period was 80 minutes -- five periods daily for five weeks. This allowed free time to write letters, visit with other students, read, etc.

Program Site. The Michigan School for the Blind campus was selected as program site because:

1. The school, operating regularly from late August to mid-June, was available.

2. Use of a state school reduced costs to parents.

3. The in-residence arrangement was valuable to students because:

- It encouraged students to learn which mobility areas they could manage for themselves.

- The hours (7 a.m. to 9:30 p.m.) were practical only on a residential basis.

- Students came from a wide geographic area. Commuting would have been impossible in many cases.

- Mobility skills could be learned and used daily -- thus reinforcing their mastery.

Student Selection. Participation was limited to children enrolled in day schools. Residential students, away from parents during regular school terms, would tend to become isolated from families if away in summer as well.

Student selection was based on:

- Teacher or counselor recommendation
- Parental consent
- Age (11 - 16)
- Sex (26 boys and 26 girls)
- Desire to attend for the entire five weeks
- Need for training in the areas of instruction
- Ability to benefit from the training
- Emotional stability
- Ability to get about without wheelchair or crutches.

Table 17, showing age grouping of children by county of residence, follows:

TABLE 17

AGE GROUPING OF BLIND CHILDREN IN 1965 SUMMER PROGRAM BY COUNTY OF RESIDENCE

Age (Years)	County																							
	Wayne		Oakland		Macomb		Jackson		Saginaw		Genessee		St.Clair		Bay		Isabella		Clare		Ingham		Total	
	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M
11	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12	2	4	0	2	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2	8
13	4	0	2	3	2	0	0	1	0	0	1	1	0	1	1	1	0	0	0	0	0	0	10	7
14	3	4	2	1	0	1	2	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	8	7
15	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1
16	1	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0	1	0	0	0	1	0	5	1
17	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
TOTAL	11	10	4	6	2	1	2	2	2	1	1	2	0	3	1	1	1	0	1	0	1	0	26	26
PERCENT	40.38		19.23		5.76		7.69		5.76		5.76		5.76		3.84		1.92		1.92		1.92		100.00	

Staff. The professional staff consisted of 16 persons in the following areas: daily living skills (3), shop, arts and crafts (2), mobility (5), physical education and recreation (3), nurse (1), dean of students (1). The staff were supplemented by four house parents, 14 aides and counselors.

Parent Participation. Parents were required to:

1. Pre-register with child's teacher.
2. Write letter of confirmation allowing child to participate in the program.
3. Provide special clothing and apparel needed by child -- properly labeled.
4. Submit required health information on the child.
5. Furnish roundtrip transportation between home and school.
6. Make a $5 deposit (refundable) for each child to cover unusual expenses, if incurred.
7. Provide nominal spending money to children.
8. Confer with instructors individually at the end of program.
9. Register children on Registration Day at the school.

Parents received written reports on progress of children.

Day School and Teacher Participation. Administrators of day school programs throughout the state were requested to distribute summer program materials to special education supervisors and teachers of the blind -- reproducing forms whenever necessary and possible.

1. Teachers of day school blind programs were requested to:
   - Distribute information sheets and pre-registration forms to parents of students recommended
   - Recommend pupils desiring the program.
2. Teachers were encouraged to visit the program.
3. Teachers received written reports on the progress of students -- for inclusion in school records.

Students' Evaluation. A questionnaire was administered to 51 students two days before the close of the program. (Students were assured names would not be associated with responses.) Here is a summary of students' evaluation:

- 70.5% desired a program longer than five weeks.
- 86.2% wanted to return next summer.

- 76.4% felt the program included enough students.
- 60.7% felt it included enough courses -- 39.2% felt it did not.
- 90.1% did not advocate excluding any courses.
- 64.7% called 80-minute class periods adequate, 27.4% said they were too long, 7.8% said too short.
- 57.3% said Mobility was the most beneficial course. 39.2% cited Daily Living Skills as most beneficial. However, 33.3% students liked physical education better than any other course.
- Among boys: 46.0% wanted more instruction in Shop, 69.2% more Mobility, 50.0% more Physical Education, 57.6% more Daily Living Skills.
- Among girls: 68% suggested added Mobility instruction, 28% more physical education, 88% more Daily Living Skills, 40% more Arts and Crafts.

- 100% called Mobility Field Trips beneficial, and 82% felt there should be more. (Field trips: city bus terminal, Greyhound terminal, the Capitol, downtown department stores for escalators, elevators, revolving doors, shopping experiences.)

- 61% said free time was adequate, but 39% felt there was not enough.

- 100% found cottage facilities adequate.

- 75% felt there were enough cottage chores, 25% said there were too many. (Chores: making bed, dusting room, setting table, washing dishes.)

- 51% felt recreation should be compulsory -- 49% said it should be voluntary.

- 8% indicated the 80-minute recreation period was too long. 92% said it was not.

- 76% wanted parents to visit classes. 24% did not. (Parents did not visit classes.)

- 61% wanted to go off campus alone -- 39% did not. (During the program, students were not permitted off campus alone.)

- 37% felt mobility should be conducted on an individual basis -- 63% saw no added benefit from individual training. (Due to staff shortage, most did not get individual lessons.)

- 98% felt the mobility skills they learned would be useful in their home community.

Teacher Evaluation of students produced these findings:

- At program end, 18% of students were below average in physical education skills (calisthenics, relays, gymnastics, tumbling, softball, swimming, rhythmic activities, wrestling, bowling, track, roller skating, modern dancing, square dancing). American Association of Health, Physical Education and Recreation Physical Fitness Tests were given at beginning and end.)

- At program end, 32% of girls tested below average in arts and crafts (clay modeling, plastic lacing, weaving, bracelet making, ceramics).

- At conclusion, 18% rated below average in daily living skills (personal grooming, table etiquette, foods, home management).

- Problem areas in mobility: following instructions, memory, visualization, gait, judgment, sound direction, kinesthetic memory, cane technique, and crossing streets. At program end, 33% rated below average in mobility.

- Areas covered on the social adjustment: adjustment to environment, other students, house-parent authority. At program end, 2% (1 person) rated as poor social adjustment.

- At conclusion, 12% were rated below average in industrial arts (electricity, sheet metal, window glazing, hand tools, power tools).

VIII. METHODS UTILIZED IN TEACHING MOBILITY

In this demonstration project, mobility instruction carried out by Metropolitan Society for the Blind specialists included: class sessions, individual lessons at school and home, conferences between training specialist and student.

In one school year, 1313 lessons or contacts by mobility specialists were recorded. Each specialist served an average of 42 students during this period.

A. Non-Cane Techniques

Non-cane or pre-cane techniques -- designed to teach blind children to move about efficiently and safely at school, at home, or other indoor areas -- included: (1) Use of a sighted guide (2) Modified Hines break (3) Retrieving dropped objects (4) Cross body (5) Lower or modified cross body (6) Trailing (7) Approaching, ascending, descending stairs (8) Entering and leaving (9) Lining up with a fixed object (10) Walking a straight line.

At school, students learned to get about safely while locating: (1) pupil's desk (2) teacher's desk (3) walls (4) closets (5) bookshelves (6) bulletin board (7) light switch (8) windows (9) wastebaskets. In the general school area, non-cane techniques are used to locate: (1) lockers (2) toilets (3) drinking fountains (4) the lunchroom (5) gym (6) classrooms and shops (7) the clinic (8) telephone booths (9) principal's office (10) counselor's office (11) the library (12) fire drill routes and exits.

B. Cane Techniques

Cane techniques taught by mobility specialists -- similar to those taught blinded veterans at Hines Veterans Hospital and graduate students at Boston College and Western Michigan University -- included: (1) the diagonal cross body (2) trailing - with left and right hand (3) locating, ascending, descending stairs (4) storing cane when seated (5) touch technique (6) detecting and recognizing objects with cane (7) following shorelines (8) locating curbs (9) lining up (10) interpreting traffic and auditory clues (11) use of cane in a crowded area (12) elevators, escalators and revolving doors.

Standard cane techniques were effective for blind children with the following adaptations:

1. Hallways were navigated via occasional auditory and tactile clues -- or no clues at all. Most junior and senior high school students preferred to develop the ability to walk a straight line down the hall and trail the walls occasionally (or not at all). This system worked well for most.

2. The same hand-grip position works for the touch technique, the trailing technique and the diagonal cross body for ascending and descending stairs. In teaching retarded children, eliminating a step is significant -- each step means additional lessons.

3. When descending escalators, feet were placed on the same step -- with one foot tilted forward over the edge. When the moving step reaches bottom, the tilted foot touched the rising step below. This alerted student to step to the stationary platform. (This technique supplements hand on escalator belt.)

C. Mobility Training in Elementary Schools

At the kindergarten and elementary level, mobility training is focused on orientation, general familiarization with the school building and use of pre-cane travel techniques to insure safe movement. In addition, instruction is designed to develop coordinated use of senses. Concepts of distance -- turns, steps (side, forward), compass points, descriptions, streets, traffic lights and signs -- are taught as required in meeting specific objectives.

Students are taught composition of building materials (wood, brick, stone, plaster, cement, glass) to identify areas of a building when trailing the wall. Identification of floor coverings (cement, ceramic tile, rubber tile, marble) helps by increasing tactile sensitivity underfoot.

Geometric shapes are taught via the Mitchell Kit of shapes and figures. Squares, rectangles, triangles, and circles are often used in descriptions. For example, a building looks like an H, or an intersection is like an X. And understanding a parallel helps a child understand the difference between parallel and intersecting streets.

Students learn to identify sounds in school buildings and nearby areas. Recordings orient child to sounds not common to school environment. Students describe each sound and identify its source.

In developing the sense of smell natural clues are reinforced through experience. Odors of the lunchroom, the clinic, the swimming pool, freshly cut grass, cut wood, paint, engine exhaust -- all enable the child to identify location.

D. Mobility Training in High Schools

At the junior high level, the student is first oriented to the new building. Then instruction in the Long Cane begins. A proper length cane in hand, the student learns its various parts -- then the diagonal cross body grip and position (a trailing technique).

Other techniques: (1) locating, ascending, descending stairs (2) cane safety (3) storing cane properly (4) positioning cane when seated (5) cane touch techniques: position of arm and hand, keeping in step, height and width of arc (6) use of inside and outside shorelines: grass, buildings, hedges (7) locating curbs, streets, intersections, crosswalks (8) street crossings: traffic clues, checking curb, lining up, noting street center, what to do when crosswalk is missed.

Also (9) crossing at traffic lights (10) entering/leaving automobiles (11) how to get on and off a bus at proper point (12) bus courtesy (13) escalators: positions of cane and hands in ascending/descending (14) revolving doors (15) elevators: floor selection, emergency buttons (16) travel in crowds: adjusting cane coverage, slower pace required.

At all times, teaching emphasizes the use of remaining senses, bearings and directions, awareness of landmarks and clues. Techniques are applied to travel around school and home neighborhoods. On field trips, students visit stores, post office, bank, drugstore, radio repair shop, bus stops, a friend's home, church. Under supervision of a mobility specialist, students learn to master skills and cope with problems basic to independent travel. As students execute trips safely and confidently, recommendations are made to parents and teachers to allow use of this knowledge at will.

In addition to residential areas, students may be taught travel in moderate business areas and in using public transportation. However, independent travel in downtown areas is usually directed to students in senior high school. These students are expected to learn to get from place to place without being shown the way. Safety when traveling is stressed at all levels of mobility training.

Mobility instruction is an individual matter -- planned after consideration of many pertinent facts about a child.

E. Mobility for Retarded Blind Children

With proper instruction, the normally functioning blind child can usually develop skills he needs to get about independently in school, in the city, and outside the city.

However, for the retarded blind child, knowledge of travel is important only insofar as it affects his ability to travel successfully. Many things taught normally functioning blind children will be above abilities of the retarded blind child. Naturally, instruction should be geared to potential use by the child.

Limited travel skills for the retarded blind child are important because of facilities available in Detroit. The Detroit League for the Handicapped has a sheltered-sheltered program for extremely limited blind persons. Goodwill Industries in Detroit also serves limited-function blind clients. Therefore, if the retarded blind child gains limited travel independence, he may be able to secure job skills and work at the League or at Goodwill. Theoretically, the lives of these persons should be more meaningful if they can engage in some work and recreational activity.

Mobility for the normally functioning blind child encompasses many thinking situations. Mobility for the retarded blind child encompasses few thinking situations.

In this demonstration study, basic techniques were taught. Being able to travel several blocks has many advantages in a metropolitan area. Visits to sheltered workshops, clinics, recreational facilities and department stores are possible. The retarded blind child can learn a bus route, then walk a few blocks to his destination. However, extensive downtown travel, crossings of busy avenues, and trips of a complicated nature are unrealistic for this group.

F. Evaluation Methods

Progress reports on mobility training are valuable to resource teachers, parents and pupils. Teachers and parents alike are eager to know what has been accomplished. An initial evaluation points out strengths and weaknesses of the child. An end-of-the-year evaluation shows what the child has accomplished, related to expected achievement and material covered.

Periodic evaluation of student progress assists the mobility instructor in determining how well objectives are being met, in setting future goals, and in gauging effectiveness of teaching methods. No evaluation method fits each individual situation. In this demonstration, objective, subjective and check-list evaluations were used.

IX. BUILDING CONTINUITY FOR MOBILITY EDUCATION

In this demonstration project, plans for continuity in mobility education were developed by Metropolitan Society for the Blind. Goal: to insure a smooth transition period that builds to complete responsibility by the cooperating community organization.

As MSB discontinued direct affiliation with an operation, the cooperating agency was fully informed about it. Meeting records, questionnaires, client data, communications, and evaluations were kept in MSB's files. Copies were sent to the cooperating agency. At the same time, information received by the cooperating agency was shared with MSB.

On request, MSB staff members provided direct assistance during the transition period.

A. Continuity in Summer Programs

Michigan School for The Blind. At the end of the 1965 summer program, MSB and Michigan School for the Blind planned a similar program for 1966. MSB provided the Michigan School with a report on the initial program -- with recommendations for the future.

The 1966 summer program was developed by the Michigan School. However, on request, Metropolitan Society provided a staff member to participate in the program. The 1966 program was similar to 1965 -- 26 boys and 26 girls, the same curriculum and length. Day school teachers and counselors continued to recommend students for participating in the program.

Based on the 1965 staff's recommendation, 30 percent of previous students returned to increase skills in several areas. Changes made in 1966:

1. Staff members for summer were recruited during the early spring.
2. In Mobility, a one-to-one student/instructor ratio was initiated.
3. A registered occupational therapist was assigned to Arts and Crafts.
4. At conclusion, staff members also evaluated the program.
5. The teacher/student calendar of activities was completed before registration.
6. School library facilities were made available to students during the day.

Other Summer Programs. The five-week summer program for teen-agers was not continued by The Rehabilitation Institute. However, other activities were initiated to provide meaningful experiences to visually handicapped students.

The Detroit Public Schools now operate a four-week summer program for blind and partially seeing students.

Visually handicapped children have been integrated in the Detroit Parks and Recreation summer programs. Also, 65 percent of pupils attending the 1965 summer program at the Michigan School for the Blind were from the metropolitan Detroit area.

The Rehabilitation Institute and Metropolitan Society for the Blind are conducting a program for college-bound blind persons. The program at the Institute offers mobility, occupational therapy, daily living skills, communications, and academics.

B. Continuity in Public School Programs

The Detroit Public Schools, the Oakland County Schools and Metropolitan Society for the Blind continued to provide mobility instruction program services to Wayne County Schools through January 1967. As early as May 1965, plans called for public schools

to take full responsibility for the mobility education of visually handicapped children. MSB's mobility consultant helped special education directors and supervisors with initial planning and via periodic assistance thereafter.

Requests for the new positions received board of education approval as early as April 1966. By June 1966, the Detroit Public Schools, Oakland County Schools and Wayne County Schools were ready to provide mobility instruction -- pending the success of recruiting efforts. The Detroit and Oakland Schools hired two former mobility project staff members. Wayne County was unsuccessful in recruiting a mobility specialist. Therefore, MSB provided mobility service to Wayne County Schools as long as possible.

As former staff members, the mobility specialists for Oakland and Detroit Schools were familiar with standards, procedures, community resources, referral methods. Thus little MSB consultation was required during the transition. Materials, equipment, and record forms were made available until they could be ordered by the public schools.

Michigan's Department of Public Instruction set up certification standards for mobility teachers in the fall of 1966. This certification -- in keeping with criteria as set by the National Commission on Standards and Accreditation of Services for the Blind -- will assure quality mobility instruction.

X. CONCLUSIONS AND RECOMMENDATIONS FOR FUTURE

At conclusion of the demonstration project (detailed in this report), Metropolitan Society of the Blind reached conclusions in four areas -- instruction techniques, administrative techniques, student-teacher-parent attitudes, and future mobility instruction research. Here are findings in each area:

A. Teaching-Technique Findings

1. Blind children and teenagers can be taught to overcome problems that limit their ability to move freely in the world around them. It is feasible to teach effective and safe mobility -- outdoors and indoors.

2. Independent movement enhances physical and mental development. It allows blind children to participate in school activities to the fullest possible degree.

3. Blind children benefit from travel experiences similar to their classmates with normal vision.

4. Children in two different intelligence categories -- average and above-average -- can achieve approximately the same skill and efficiency in mobility. Students with retarded intelligence are more limited but can still improve in basic mobility.

5. Although multi-handicapped blind children can learn, mobility teaching must be modified to fit capabilities.

6. Public schools provide many opportunities to develop mobility. By illustrating the rewards of independent travel, the public school environment helps children regard mobility as a useful skill -- not an isolated subject.

7. Techniques utilized in teaching mobility to blind war veterans can be successfully applied to children blinded from birth or early life.

B. Administrative Recommendations

In establishing mobility in public schools, MSB recommends:

1. Departments of special education at district and/or county level should accept responsibility of providing:

- Comprehensive mobility programs for capable visually handicapped children.
- Meaningful mobility instruction to blind children in various diagnostic categories and with limited capabilities.

2. Mobility services should meet standards of Commission on Standards and Accreditation of Services for the Blind and the State Board of Education.

3. Boards of education should employ mobility specialists for consultation and teaching. Adjacent school districts with a few blind children should share mobility teachers.

4. Mobility policy-making should be responsibility of special education director or supervisor of classes for the visually handicapped -- following consultation with mobility specialists and resource teachers.

5. Testing of students at a reputable low vision clinic should be a mobility education requirement.

C. Findings on Student-Teacher-Parent Attitudes

1. Early emphasis on safe and independent travel helps youngsters assume a positive attitude toward the whole process of learning mobility.

2. Student enthusiasm for mobility lessons heightens when oriented toward a specific objective of interest.

3. A mobility lesson is more effective doubling as a field trip (post office, bus terminal, department store, etc.).

4. Student competition and rivalry occurs in mobility training just as in other classes.

5. Students tend to blame parents for their limited travel experiences.

6. Neither teachers nor parents are reluctant to allow students to travel indoors independently.

7. Supervised outdoor travel generally receives parental approval. Parents of girls, however, must be shown that outside travel is safe. Approval usually follows demonstration.

8. Teacher attitudes toward travel -- positive or negative -- are transmitted to students.

9. Resource teachers sometimes influence travel attitudes of students more than parents or mobility specialists.

10. Teachers usually accept the recommendations of a mobility specialist for a child's travel abilities. Approval for independent travel is granted accordingly.

11. Teachers want periodic reports on progress of mobility students.

12. Teachers generally consider the mobility specialist responsible for teaching independent mobility.

13. Teachers and parents alike favor workshops that develop their own understanding of mobility -- its philosophy, methods, goals.

D. Recommendations for Future

Further research on the teaching of mobility should be designed to:

1. Refine and expand methods of teaching greater usefulness of residual vision.

2. Develop equipment and procedures to teach mobility with vision aids.

3. Determine most effective methods of teaching mobility to retarded blind children. Factors to investigate: age of child, teaching conditions, teaching quality, frequency of instruction.

4. Isolate methods and procedures that produce optimum effectiveness in teaching mobility.

5. Determine if needs of children with partial vision can be met through mobility training.

6. Document effects of independent mobility on the attitudes, goals, personality and living style of blind children.

7. Correlate age and grade with independent travel demands.

8. Gauge how effectively children transfer mobility skills gained in summer school to use in home situations.

APPENDIX A:

SOURCE FILE: FURTHER INFORMATION ON DEMONSTRATION PROJECT

Complete information on the Detroit Mobility Demonstration Project is too voluminous to include in report form. However, Metropolitan Society for the Blind will be happy to cooperate with colleague groups or other professionals seeking more detail. MSB has the following information on file:

1. Administrators and Teachers
    - Personnel Affiliated with Demonstration Project
    - Summer Program Staff 1964
    - Summer Program Staff 1965

2. Administrative & Teaching Aids for Mobility Training
    - Mobility Fact Sheet
    - Initial Evaluation: Check list & Narrative
    - Lesson Notes
    - Student Evaluations & Progress Reports
    - Pupil Travel Records
    - Self-Care Checklist
    - Low Vision Evaluation

3. Summer Program Evaluations
    - Evaluation By Students
    - Evaluations of Program by Staff
    - Mobility Instructors' Evaluation of Mobility Teaching
    - Evaluations of
        - Social Adjustment
        - Mobility Education
        - Arts and Crafts
        - Home Life and Daily Living Skills

4. Project Personnel
    - Publications
    - Monthly Data Charts

5. Glossary of Terms
    - Mobility Terms
    - General Terms Relating to Project

For more information in any of these areas, address McAllister Upshaw, Metropolitan Society For The Blind, 1401 Ash Street, Detroit, Michigan 48208.

APPENDIX B:

REFERENCE WORKS FOR RELATED READING

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M567 Metropolitan Society f/t Blind.
A RESEARCH AND DEMONSTRATION PROJECT: ESTABLISHING MOBILITY TRAINING FOR BLIND CHILDREN...
Date Due (1968)

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